
Emergency Services Access

Purpose of this overview

The purpose of this overview is to provide a synopsis of the Emergency Services Access (ESA) feature description. For complete information on ESA, please refer to *Emergency Services Access Feature Description and Administration* (553-3001-313).

Emergency Services Access feature overview

Emergency Services Access (ESA) is a totally new feature that places a customer in compliance with new federal legislation that requires the Private 911 type of functionality provided by ESA. Please note, however, that the ESA feature is also generally useful for users who are not subject to legislation, and is broad enough to be used in different countries. For example, it will be appreciated by any customer who wants to route emergency calls in a special manner, or who wants to be notified when a telephone user makes an emergency call. It would also appeal to a customer who wishes to have ESA calls answered on-site, on the business premises, rather than being forwarded to the Public Services Answering Point (PSAP).

The focus of the Emergency Services Access (ESA) feature is to provide the following capabilities:

- A special ESA Directory Number access (such as 911) can be defined to access emergency services. This number can be dialed without having to first dial an ESN access code.
- The Meridian 1 recognizes that the dialed ESN DN is an emergency call, and provides special treatment.
- Route the call to special trunks designated to handle ESA calls (either dedicated to handle only ESA calls, or shared to handle other types of calls as well).

- Provide flexible Automatic Numbering Identification (ANI) number translation for non-DID numbers (and for DID numbers, if desired by the customer).
- Send out the ANI of the station with the call, so that the PSAP can use it to determine the caller's location.
- Support a networking environment, that is, where the ESA call is originated on one node, and then routed across the network to another node for onward routing into the Public Network and the PSAP.
- Provide On-site Notification, so that the customer's staff knows that an ESA call is in progress.

There are four major components of ESA that provide the functionality described above.

With 'ESA Call Recognition' an Emergency Services Access DN (such as 911) can be configured on the Meridian 1. When a caller dials the ESA DN (there is no need to first dial an Access Code), the Meridian 1 automatically recognizes the call as an Emergency Services Access call and sets up special treatment.

With 'ESA Call Routing' outgoing trunk routes may be designated to handle ESA calls.

With 'ESA Calling Terminal Identification' the Meridian 1 composes an ESA calling number for outgoing ESA calls.

With 'On Site Notification' a Meridian 1 output device (such as a terminal or a set) may be configured to provide an on-site alerting capability for ESA calls. The last two capabilities allow emergency and security personnel to respond more promptly in the event of an ESA call.

Packaging

ESA is comprised of three different packages, which must be implemented separately depending on the functionality that a customer desires (as outlined in the Feature implementation section on page 318).

The Emergency Services Access (ESA) package 329 provides ESA Call Recognition, ESA Call Termination Identification, and ESA Call Routing. It also provides basic number translation, such as the addition of NXX and NPA (area and office) codes, but not non-DID to DID translation (this is provided by the ESA_CLMP package). The ESA_SUPP package provides supplementary capabilities, such as networking capabilities (for example, incoming ISDN to CAMA number conversions), and On Site Notification. The ESA_CLMP package provides translation of non-DID to DID numbers.

System configurations

The most common Meridian 1 system configurations that are possible with ESA are as follows:

- non-networking, handling DID ESA calls or non-DID ESA calls
- networking configuration, handling ESA calls for the following scenarios:
 - Non-ISDN network, originating node is non-Meridian 1
 - Non-ISDN network, originating node is a Meridian 1
 - ISDN network, originating node is non-Meridian 1
 - ISDN network, originating node is a Meridian 1
- standalone configuration (on-site call answering). A standalone configuration is one where ESA calls are answered on the business premises, rather than being forwarded to the PSAP. The calls, however, may then be redirected to the PSAP, if required.

Feature implementation

The following steps are required to implement ESA:

- 1 Modify the customer CLID database to allow ESA calling number composition, using Overlay 15.
- 2 Configure CLID entries for non-ISDN routes, so that when an incoming non-ISDN trunk initiates a tandem ESA call, the ESA Calling Terminal Identification function will compose an ESA calling number to identify the incoming trunk. This is done using Overlay 16.
- 3 Configure a CLID entry for analog (500/2500 type) sets, Meridian 1 proprietary sets, and Basic Rate Interface (BRI) sets, using Overlays 10, 11, and 27 respectively.
- 4 Configure OSN Notification data:
 - Configure an OSN output device using Overlay 17.
 - Configure an OSN set using Overlay 11.
 - Configure terminal designator (DES) data for (500/2500 type) sets, Meridian 1 proprietary sets, and BRI sets, using Overlays 10, 11, and 27 respectively.
- 5 Configure ESA:
 - Configure ESA data using Overlay 24.
 - Configure ESA route data using Overlay 16.
 - If BARS/NARS is used, configure ESA digit manipulation and call routing using Overlay 86, and ESA call recognition using Overlay 90. This is to allow Access Code + Emergency Services Directory Number (ESDN) dialing to be recognized and treated as an ESA call.